

A cross-sectional view of a substrate 30. A layer 32 is formed on the top surface of the substrate 30. The layer 32 is patterned into three rectangular blocks 34, 36, and 38, which are separated by recessed regions 40. The blocks 34, 36, and 38 are filled with a hatched pattern, while the recessed regions 40 are empty.

A cross-sectional view of a substrate 30. A layer 34 is formed on the top surface of the substrate 30. The layer 34 is patterned into a series of rectangular blocks 36, which are separated by gaps 38. Each block 36 is formed by a layer 40s.

30

34 36 38 40s 42

A cross-sectional view of a substrate assembly. The substrate consists of multiple layers: a top layer (34), a middle layer (36), and a bottom layer (38). Four vertical vias (40s) are formed through the substrate, each containing a conductive core (46). The vias are connected to a top conductive layer (42) and a bottom conductive layer (44). A horizontal conductive layer (48) is located between the middle and bottom layers. On the left side, three upward-pointing arrows are labeled 5,8, 6,7,9, and 6,7,9. On the right side, two upward-pointing arrows are labeled 5,8 and 6,7,9.



Fig. 5

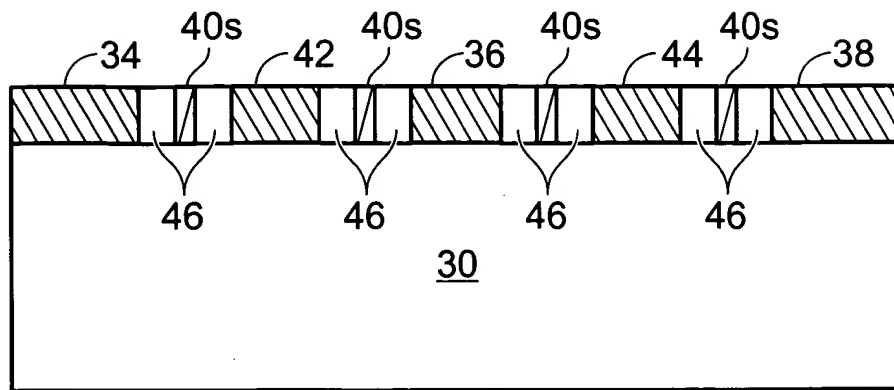


Fig. 6

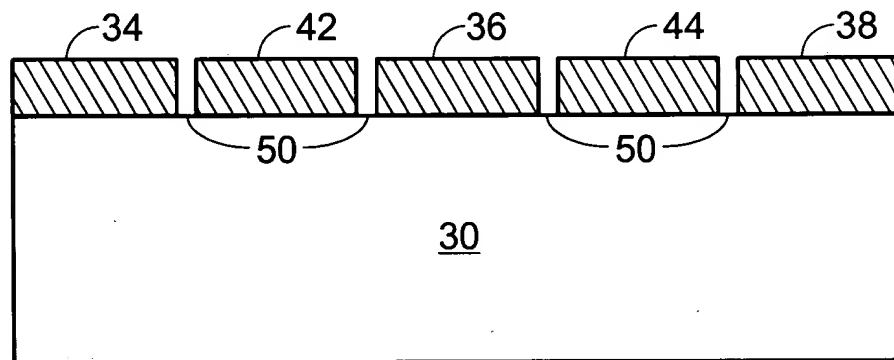


Fig. 7

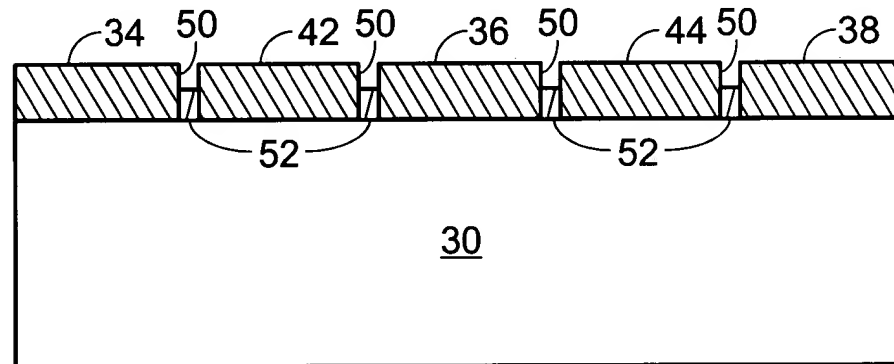


Fig. 8

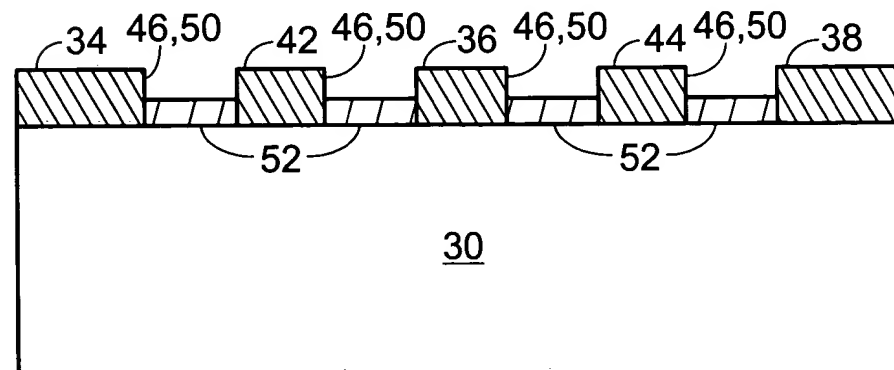




Fig. 9

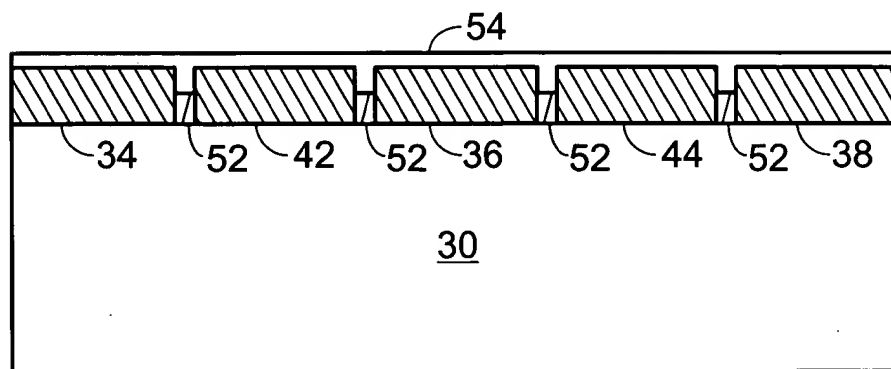


Fig. 10

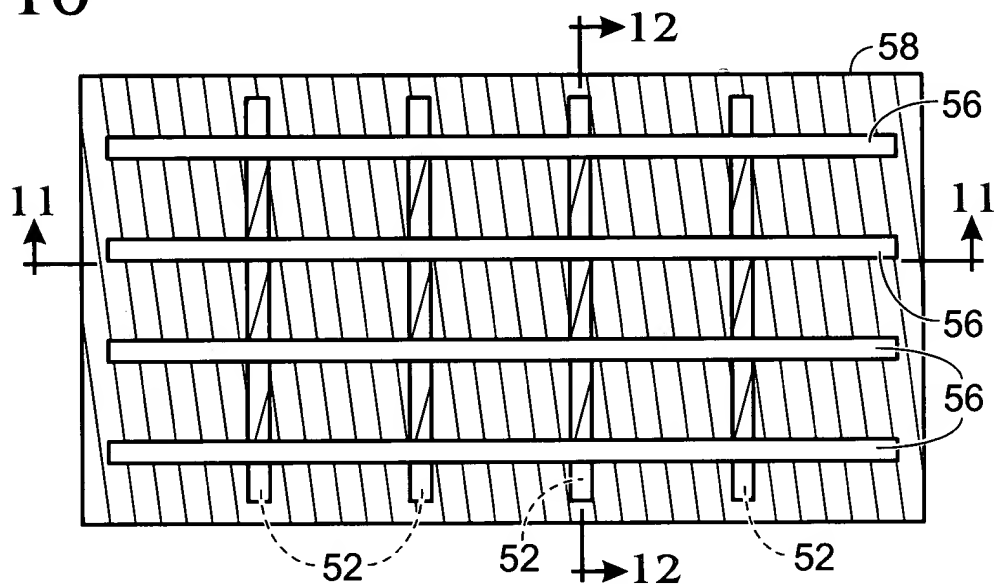


Fig. 11

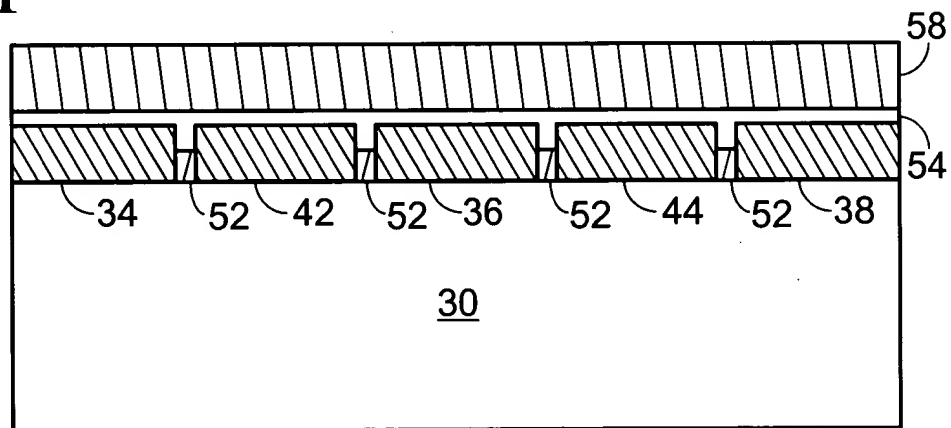




Fig. 12

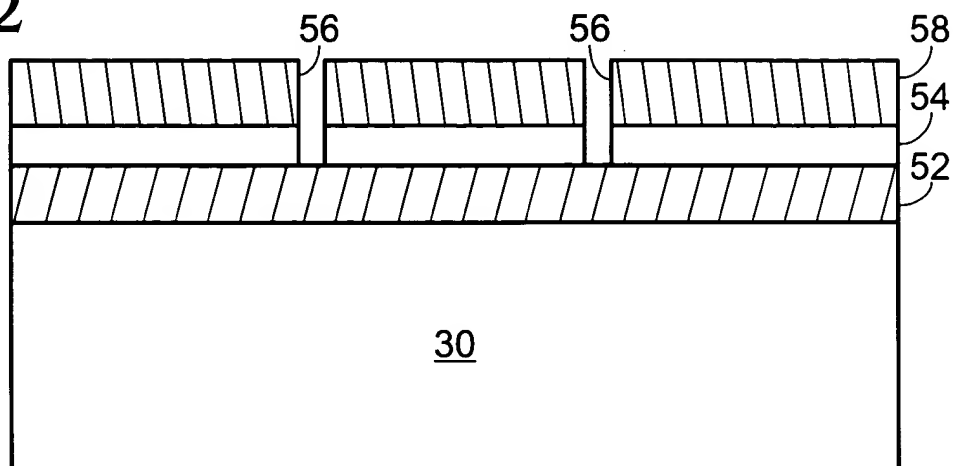


Fig. 13

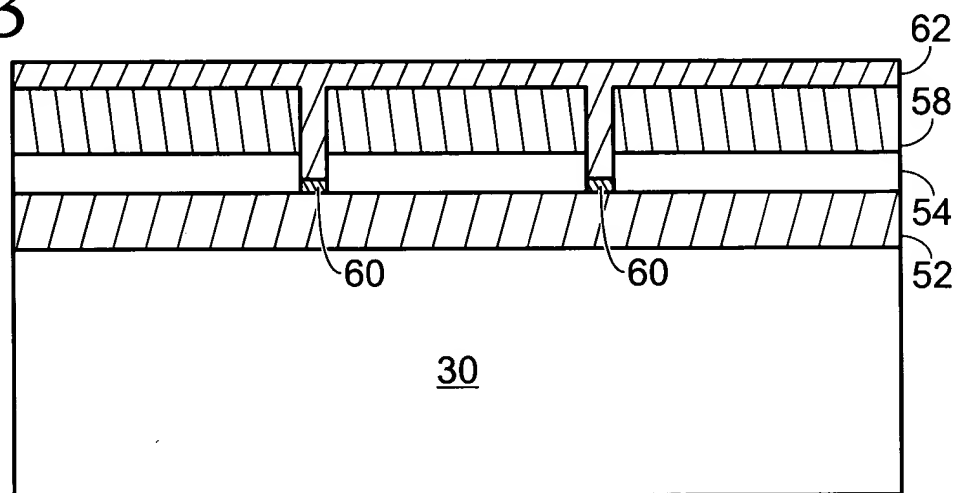


Fig. 14

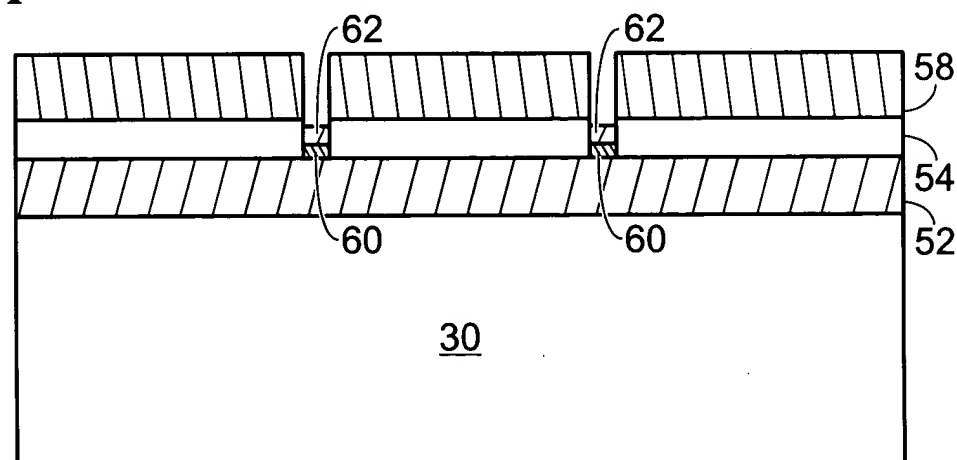




Fig. 15

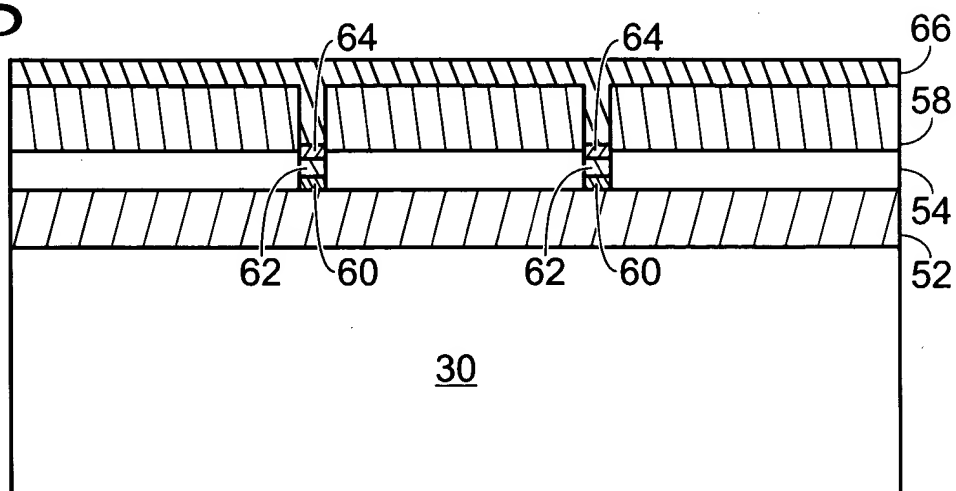


Fig. 16

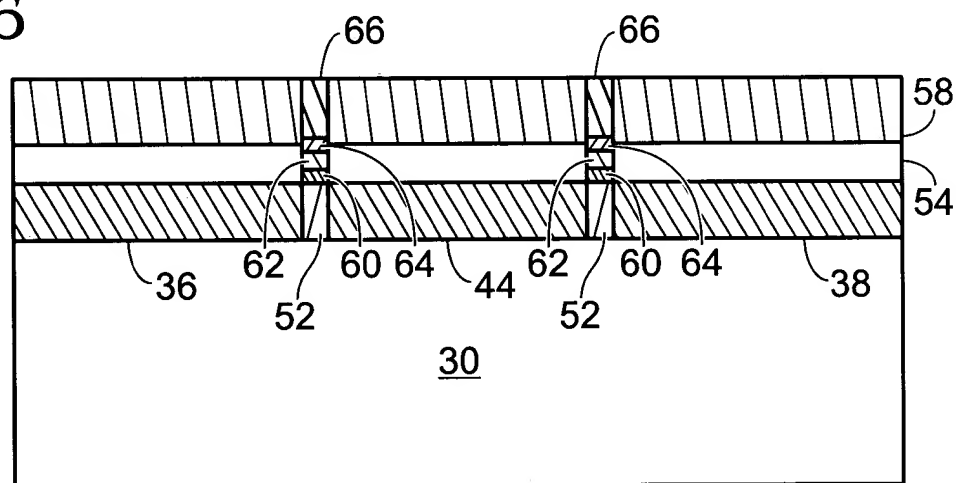


Fig. 17

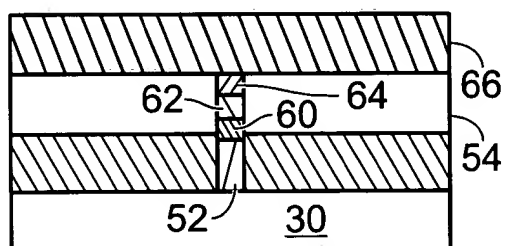


Fig. 18

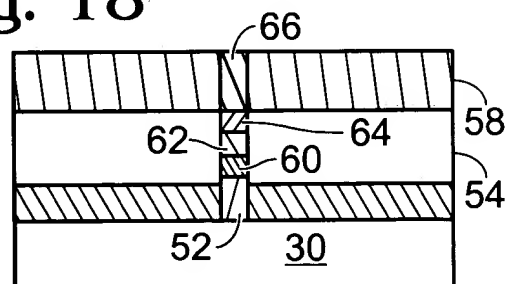




Fig. 19

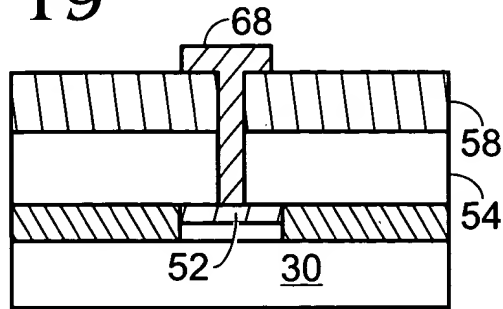


Fig. 20

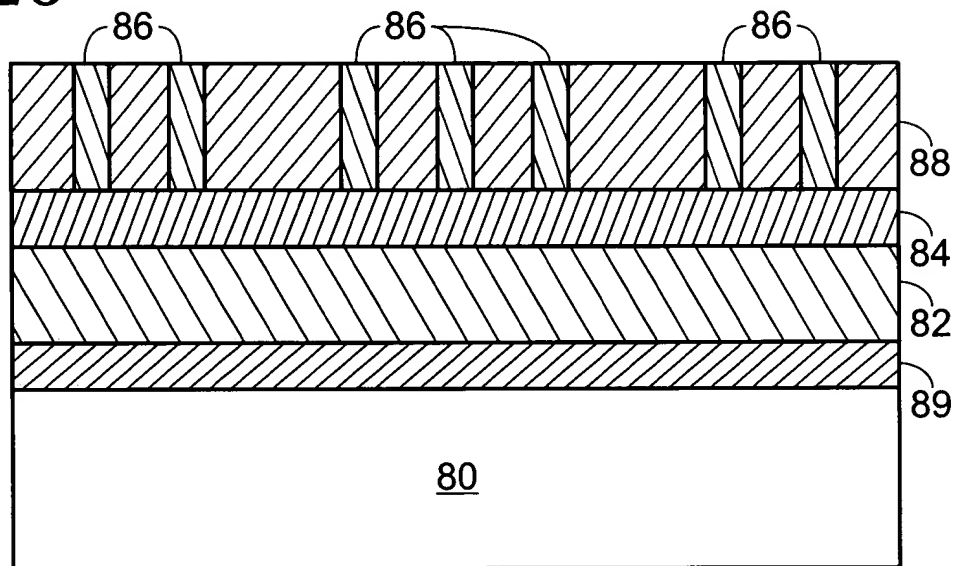
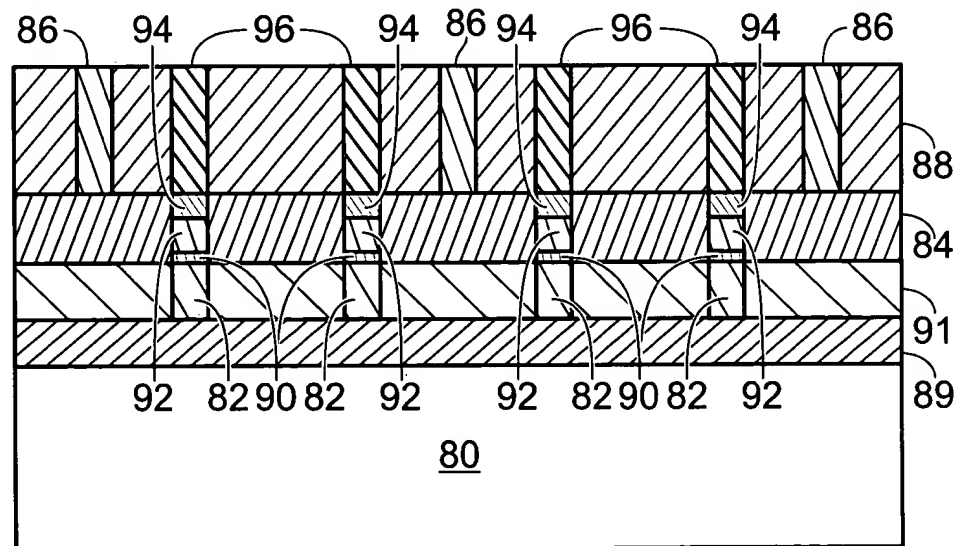


Fig. 21





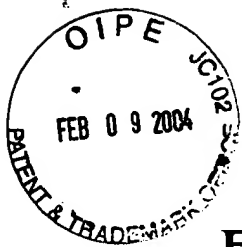


Fig. 24

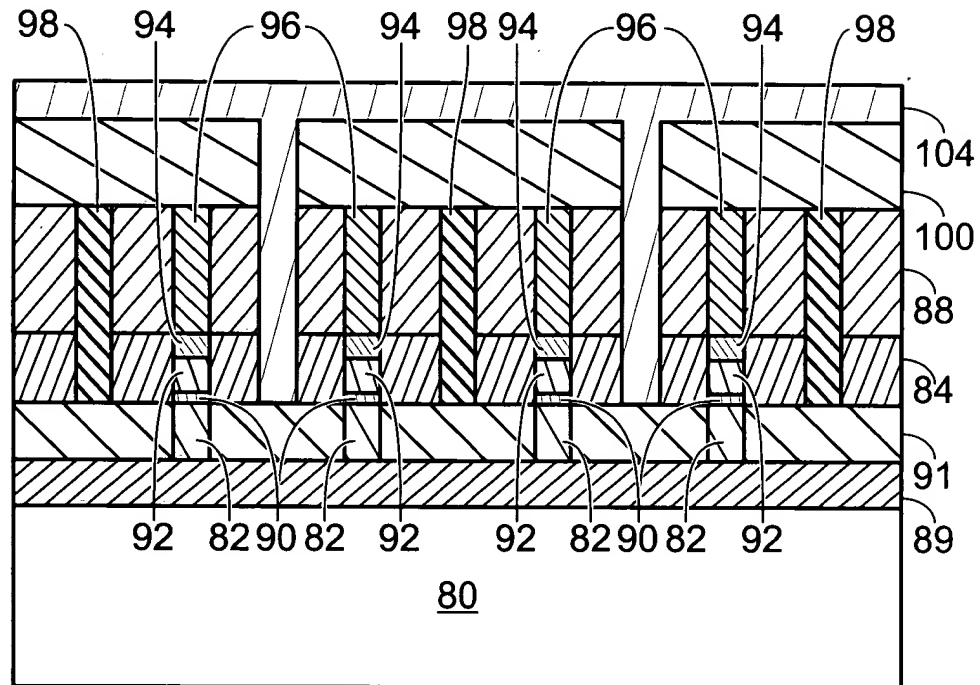


Fig. 25

